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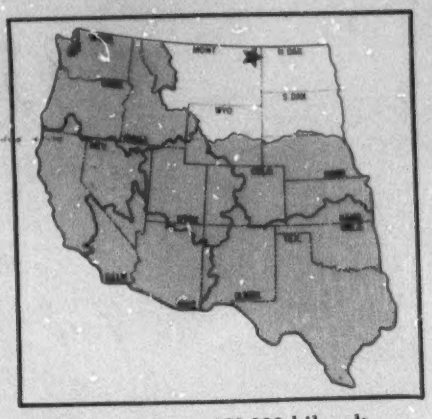
# Fort Peck Project

**Montana and North Dakota: 17 Counties[1]**

**Upper Missouri Region**
**Bureau of Reclamation**



The Fort Peck Project includes Fort Peck Dam, Powerplant, and Lake; 29 substations; and over 1,000 circuit miles of transmission lines. The dam and powerplant were constructed by the Corps of Engineers. The transmission lines extend from the dam to Great Falls, Havre, Shelby, Miles City, and Glendive (all in Montana); and to Williston, N. Dak. With the advent of the Department of Energy in October 1977, the WAPA (Western Area Power Administration) assumed, from the Bureau of Reclamation, the marketing and distributing of the electrical energy generated by the powerplant. The operation and maintenance of the transmission lines and substations were also assumed by WAPA in 1977.

## PLAN

Electrical energy is furnished to commercial and irrigation-pumping load centers in the Great Plains area of eastern Montana and western North Dakota. The project serves the area along the Yellowstone River below Miles City, the area along the Missouri River from Fort Peck, Mont. to Williston, N. Dak., and the area along the Milk River from Fort Peck to Havre — then on to Shelby and Great Falls.

Power is furnished to customers directly from substations located along the transmission lines or by wheeling agreements over the lines of interconnecting power systems. Power is transmitted 291 miles from Fort Peck to Great Falls over a 161-kilovolt line. About 543 miles of 115-kilovolt lines serve the cities of Shelby, Glendive, and Miles City, and connect with the PSMBP (Pick-Sloan Missouri Basin Program) at Williston, N. Dak. The total installed transformer capacity in all the project's 29 substations as of October 1, 1981, was 378,900 kilovolt-amperes. The Fort Peck power system has been integrated with the PSMBP to serve a common market area.

[1]Montana: Blaine, Cascade, Chouteau, Custer, Dawson, Hill, Liberty, McCone, Phillips, Prairie, Richland, Roosevelt, Sheridan, Toole, and Valley Counties. North Dakota: McKenzie and Williams Counties.

## DEVELOPMENT

### Authorization

Construction of the dam began under an Executive Order in October 1933 as part of the Public Works Administration Program. Congress, under the River and Harbor Act of August 30, 1935, authorized construction of the dam primarily for navigation but with provisions for future power development. The Fort Peck Project Act of May 18, 1938 (52 Stat. 403), authorized the completion, maintenance, and operation of the project. This act also authorized the Corps to construct, maintain, and operate a powerplant; and to install additional generating facilities when deemed necessary by Reclamation. Also, this act made Reclamation responsible for construction, operation, and maintenance of transmission lines to market the power generated. This responsibility was transferred to WAPA in 1977. The Flood Control Act of 1944 authorized integration of the power systems of the Fort Peck Project with those of the PSMBP.

### Construction

Construction of Fort Peck Dam and Lake by the Corps of Engineers began in 1933 and was substantially completed in 1939. The first power unit, with a generator rating of 35,000 kilowatts, commenced operation on July 1, 1943. A second generator, rated at 15,000 kilowatts, was installed in 1948; and a third generator, rated at 35,000 kilowatts, was placed in operation in 1951. A second powerplant, rated at 80,000 kilowatts, was constructed by



Region Revision 5/82
(From Project Data Book)

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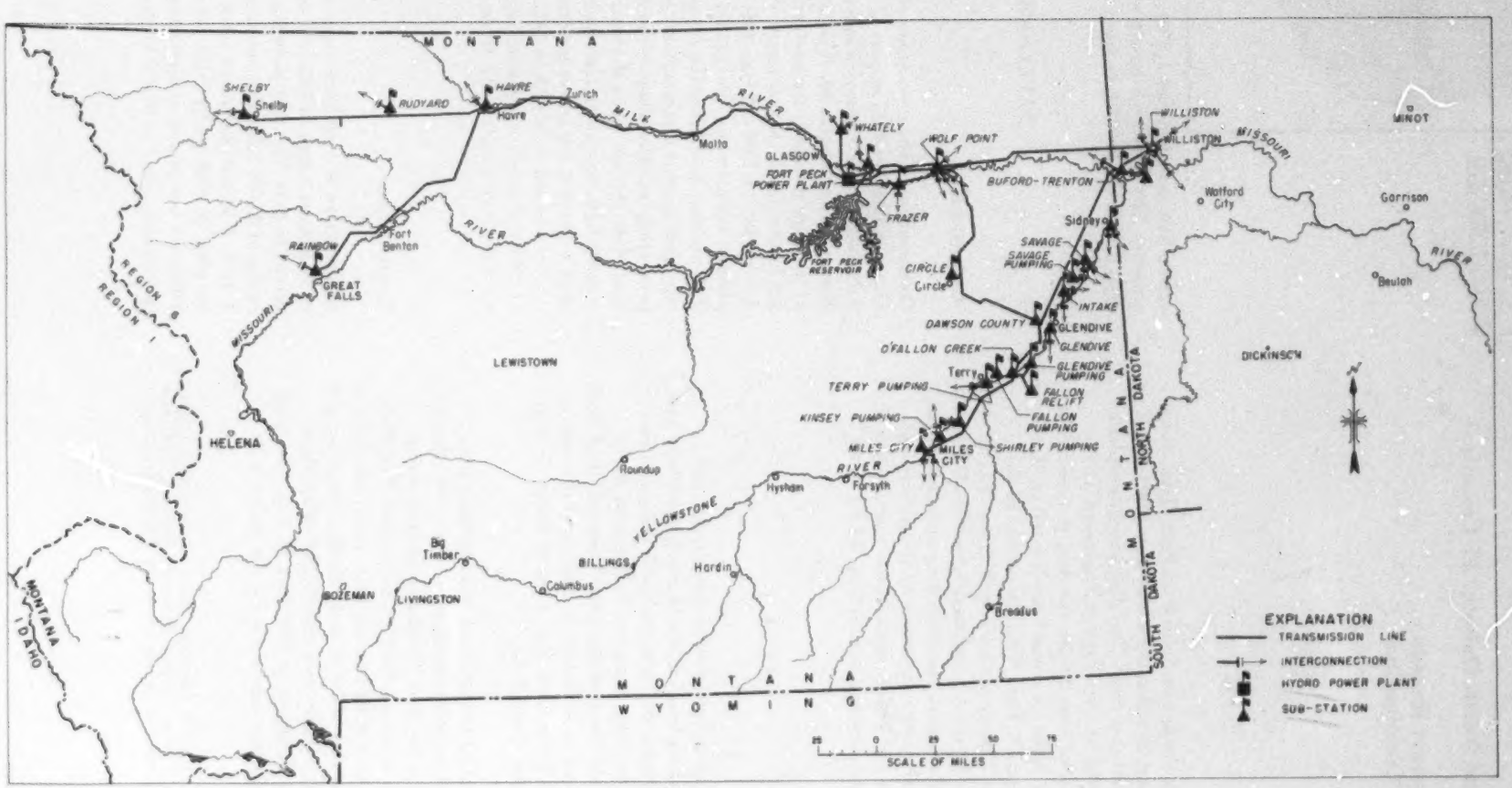


**Fort Peck Project**

**Fort Peck Dam**

the Corps with two units on line in June 1961. Updating of the original units now shows the nameplate generating capacity at 185,300 kilowatts. The 161-kilovolt transmission line, originally constructed to furnish power for dam construction operations, is now delivering power to the Montana Power Co. load centers in Havre, Shelby, and Great Falls. Transmission facilities are constructed as required to market the power in accordance with the scheduled installations of additional generating facilities at the powerplant.

## BENEFITS

### Power

Power from the Fort Peck Project has brought increased domestic and industrial benefits to many areas in Montana and North Dakota.

## PROJECT DATA

### Gross Power Generation

| Fiscal year | Fort Peck Powerplant (kWh) | Fiscal year | Fort Peck Powerplant (kWh) |
|---|---|---|---|
| 1949 | 369,643,800 | 1965 | 1,075,597,000 |
| 1950 | 374,813,000 | 1966 | 1,572,594,000 |
| 1951 | 327,673,000 | 1967 | 1,098,786,000 |
| 1952 | 471,273,000 | 1968 | 1,300,332,600 |
| 1953 | 618,938,000 | 1969 | 1,423,522,000 |
| 1954 | 614,962,000 | 1970 | 1,407,152,000 |
| 1955 | 554,485,000 | 1971 | 1,630,480,000 |
| 1956 | 461,335,000 | 1972 | 1,342,802,000 |
| 1957 | 522,997,000 | 1973 | 1,179,973,000 |
| 1958 | 471,972,000 | 1974 | 857,748,000 |
| 1959 | 647,911,000 | 1975 | 1,358,199,000 |
| 1960 | 715,478,000 | 1976 | 1,663,466,000 |
| 1961 | 764,501,000 | 1977 | 1,187,534,000 |
| 1962 | 899,401,000 | 1978 | 1,202,432,000 |
| 1963 | 560,777,000 | 1979 | 1,552,356,000 |
| 1964 | 585,478,000 | 1980 | 1,234,988,000 |

## Facilities in Operation

| | |
|---|---|
| Powerplants[2] | 1 |
| Transmission lines | 1018.62 mi |
| Substations | 29 |

[2]Operated by Corps of Engineers.

## ENGINEERING DATA

### Power Facilities

SUBSTATIONS

| | |
|---|---|
| Number in operation | 29 |
| Total capacity of transformers | 378,500 kVA |

TRANSMISSION LINES

| | |
|---|---|
| Total number of lines | 25 |
| Total circuit miles | 1018.62 |

| Designation | Capacity (kV) | Capacity (kW) | Circuit miles | Year placed in service |
|---|---|---|---|---|
| Fort Peck—Dawson County | 230 | --- | 105.20 | 1961 |
| Fort Peck Powerplant—Rainbow Substation | 161 | 50,000 | 291.27 | 1935 |
| Dawson County—Williston | 115 | --- | 92.01 | 1954 |
| Havre Substation—Shelby Substation | 115 | 30,000 | 98.58 | 1951 |
| Havre-Shelby Line—Tiber Substation | 115 | 2,500 | 11.88 | 1953 |
| Fort Peck Powerplant—Dawson County | 115 | 20,000 | 135.15 | 1945 |
| Dawson County Substation—Miles City Substation | 115 | 40,000 | 71.92 | 1949 |
| Fort Peck Powerplant—Williston Substation | 115 | 40,000 | 129.74 | 1951 |
| Dawson County Substation—Glendive Substation | 115 | 20,000 | 2.72 | 1945 |
| Shirley Tap—Shirley Pumping Plant | 115 | --- | 0.77 | 1973 |
| Fort Peck Powerplant—Whately Substation | 69 | 10,000 | 14.45 | 1934 |
| O'Fallon Creek Substation—Fallon Substation | 69 | 5,000 | 0.74 | 1949 |
| O'Fallon Creek Substation—Fallon Relift | 69 | 5,000 | 2.27 | 1949 |
| Fallon Relift Substation—Glendive P.P. Substation | 69 | 5,000 | 2.12 | 1956 |
| MDU[3] Line Tap—Buford-Trenton Substation | 57 | 1,500 | 2.50 | 1942 |
| MDU Line Tap—Kinsey Substation[4] | 57 | 1,000 | 2.50 | 1940 |
| Fort Peck Powerplant—Frazer Substation | 34.5 | 1,500 | 22.18 | 1944 |
| Frazer Substation—Wolf Point Substation | 34.5 | 1,500 | 16.50 | 1945 |
| Nashua Tap—Nashua | 34.5 | --- | 7.51 | 1944<br>Rebuilt 1947 |
| Valley Tap—Valley | 34.5 | --- | 0.88 | 1964 |
| Frazer Pumping Tap—Frazer Pumping Plant | 34.5 | --- | 0.76 | 1944 |
| Terry Tap—Terry Pumping Plant | 34.5 | --- | 2.80 | 1973 |
| Intake Pumping Plant Tap Line | 2.3 | --- | 1.47 | 1947 |
| Kinsey Substation—North Line[4] | 2.3 | --- | 1.20 | 1940 |
| Kinsey Substation—South Line[4] | 2.3 | --- | 1.50 | 1940 |

[3]Montana-Dakota Utilities Co.
[4]Owned by Kinsey Irrigation District, operated by WAPA.

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